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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,942	02/25/2004	Shinya Akamatsu	Q79954	9490
23373	7590	09/13/2005		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER ZARROLI, MICHAEL C	
			ART UNIT	PAPER NUMBER
			2839	

DATE MAILED: 09/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/784,942

Applicant(s)

AKAMATSU ET AL.

Examiner

Michael C. Zarroli

Art Unit

2839

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-37 is/are allowed.
- 6) ☒ Claim(s) 1, 3-6, 8 and 26 is/are rejected.
- 7) ☒ Claim(s) 7 and 9-25 is/are objected to.
- 8) ☒ Claim(s) 38 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments and amendment, filed 8/1/05, with respect to the rejection(s) of claims have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection has been discovered.

### *Drawings*

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the first lock mechanism "**connecting** said first terminals and said second terminals" must be shown or the feature(s) canceled from the claim(s). The new figures provided by the applicant don't really show anything. The core of the applicant's invention seems to be a locking mechanism that not only locks the board in place but also **makes electrical contact** between the first and second terminal. No new matter should be entered. None of the figures show this mechanism in action.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement-drawing sheet should include all of the figures appearing on

the immediate prior version of the sheet, even if only one figure is being amended.

The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Election/Restrictions*

3. Restriction to one of the following inventions is required under 35 U.S.C.

121:

- I. Claims 1, 3-37, drawn to an electrical connector, classified in class 439, subclass 61.

- II. Claim 38, drawn to cooling arrangement for panel-mounted connectors, classified in class 361, subclass 694.

The inventions are distinct, each from the other because of the following reasons:

4. Inventions I and II are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, invention II has separate utility such as cooling for various power connections. See MPEP § 806.05(d).
5. Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.
6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).
7. During a telephone conversation with Tim Cremmen on 9/9/05 a provisional election was made without traverse to prosecute the invention of Group I, claims 1,

3-37. Applicant in replying to this Office action must make affirmation of this election. Claim 38 withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1, 3-6, 8, 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Bunnell in view of Wilson et al.

Bunnell discloses an apparatus adapted to make an electrical connection with a first electronic unit (14) having a first edge portion fig. 1 and first terminals (22) disposed along said first edge portion, said apparatus comprising: a first supporting member (12, 40); and a first connector (10) supported by said first supporting member fig. 1, said first connector having a body (24) elongated in a longitudinal direction (fig. 1) and second terminals (48) disposed along said longitudinal direction, wherein said first connector is adapted to slidably guide (fig.

2) said first edge portion of said first electronic unit to a first fully inserted position (fig. 3) such that each one of said first terminals faces respective one said second terminals fig. 3; and said first connector includes a first lock mechanism 36 locking said first edge portion of said first electronic unit at said first fully inserted position fig. 4 and connecting said first terminals and said second terminals electrically.

Bunnell is not specific about the electronic unit being slid longitudinally into the connector.

Wilson discloses fig. 5 an electronic unit slid longitudinally into a connector and then locked into place. At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the elongated connector of Bunnell to be able to accept the unit slid longitudinally. The suggestion for this is found in Bunnell figure 1 where the electronic unit is shown to the side of the longitudinal connector.

Regarding claim 3 Bunnell discloses that said supporting member includes a circuit board (12).

Regarding claim 4 Bunnell discloses that a direction of a cooling airflow (fig. 3) is substantially parallel to said longitudinal direction of said first connector.

Regarding claim 5 Wilson discloses that a housing (10) having a front portion, a rear portion and a front opening (fig. 1) in said front portion, wherein said first

supporting member and said first connector are arranged between said front portion and said rear portion of said housing.

Regarding claim 6 Wilson discloses that said longitudinal direction of said first connector is substantially parallel to a direction from said front portion to said rear portion of said housing (fig. 5).

Regarding claim 8 Wilson discloses that said first supporting member is substantially perpendicular to said front portion of said housing (fig. 4).

Regarding claim 26 Bunnell discloses that said first electronic unit is connected to said first connector (figures).

***Allowable Subject Matter***

10. Claims 2, 10, 13-16 and, 20-25 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. The following is a statement of reasons for the indication of allowable subject matter: In combination the lock mechanism or the second unit slidable in a second direction opposite from the first direction of the first unit.



*Conclusion*

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kamiyamane, Brusati et al and, Bauerle all teach connectors that slidably receive edges with contacts.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Zarroli whose telephone number is 571-272-2101. The examiner can normally be reached on 7:30 to 3:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, T.C. Patel can be reached on (571) 272-2800 ext 39. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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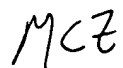
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A handwritten signature in black ink, reading "Michael C. Zarroli". The signature is written in a cursive style with a large, looped initial "M".

Michael C. Zarroli

Primary Examiner

Art Unit 2839

Handwritten initials "MCZ" in black ink. The letters are written in a simple, slightly stylized font.

MCZ